

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Previously Presented): An apparatus, operable in a wireless communication system, comprising:

 a customer manager to determine a first user preference for selective re-encoding of a multimedia stream for a first user and a second user preference for selective re-encoding of the multimedia stream for a second user;

 an encode manager included within wireless service provider equipment of the wireless communication system that receives the multimedia stream and selects at least one of a plurality of encoding parameter sets for each of the first and second user preferences in accordance with an encoding scheme, wherein the encoding scheme includes a first scheme based on the first user preference and a second scheme based on the second user preference, wherein the multimedia stream includes a plurality of different types of data, wherein the plurality of encoding parameter sets include a first encoding parameter set for encoding only a first type of the plurality of types of data, a second encoding parameter set for encoding only a second type of the plurality of types of data different from the first type, a third encoding parameter set for encoding only a third type of the plurality of types of data different from the first and second types and a fourth encoding parameter set for encoding multiple types of the plurality of types of data, and wherein the first user preference and the second user preference each indicates which of the first, second, third and fourth encoding parameter sets to use when encoding the multimedia stream; and

 an encoder system included within the wireless service provider equipment for selectively re-encoding the received stream using the selected one of the plurality of encoding parameter sets to output an encoded stream with principles set fourth by the selected one of the plurality of encoding parameter sets,

 wherein the first user preference specifies a first demand to provide the multimedia stream at a lower quality of service and a lowest billing rate, and the second user preference specifies a second demand to provide the multimedia stream at a higher quality of service and a higher billing rate relative to the first demand, and

wherein in response to the first user preference, the encode manager selects one of the plurality of encoding parameter sets that provides a high rate of compression and the lower quality of service at the lowest billing rate, and in response to the second preference, the encoder manager selects one of the plurality of encoding parameter sets that provides the higher quality of service at the higher billing rate.

Claim 2 (Previously Presented): The apparatus of claim 1, wherein the encoding scheme is selected from a group that includes one or more of a scheme based on a system bandwidth, a scheme based on a wireless receiver capability, a scheme based on a number of users requesting a specific multimedia stream at a designated QoS, a scheme based on a multimedia data type, the scheme based on the user preference and a scheme based on characteristics of a mobile station.

Claim 3 (Previously Presented): The apparatus of claim 2, wherein the customer manager uses schemes based on the first and second user preferences to generate billing information for the first and second users.

Claim 4 (Previously Presented): The apparatus of claim 2, wherein the customer manager uses the multimedia data type generated for the first and second users to generate billing information for the first and second users.

Claim 5 (Previously Presented): The apparatus of claim 2, further comprising an encoder for executing the selected one of the plurality of encoding parameter sets for each of the first and second users based on the encoding scheme.

Claim 6 (Previously Presented): The apparatus of claim 2, further comprising a plurality of encoders, each for executing one of the plurality of encoder parameter sets for each of the first and second users.

Claim 7 (Previously Presented): The apparatus of claim 1, wherein the encoder manager includes a bandwidth manager that dynamically determines an available bandwidth for the multimedia stream.

Claim 8 (Currently Amended): The apparatus of claim 1, further comprising a decoder for receiving the multimedia stream and decoding the received stream to output a decoded stream, wherein the encoder system re-encodes the received stream by re-encoding the decoded stream using the selected one of the plurality of encoding parameter sets for each of the first and second users to output the encoded stream differently for each of the first and second users with principles set forth ~~fourth~~ by the respective encoding parameter set.

Claim 9 (Previously Presented): The apparatus of claim 1, wherein the encoder manager comprises a bandwidth manager for selecting the one of the plurality of the encoding parameter sets for each of the first and second users in accordance with the encoding scheme.

Claim 10 (Previously Presented): The apparatus of claim 1, wherein the encoder system comprises an encoder for executing the selected one of the encoding parameter sets for each of the first and second users.

Claim 11 (Previously Presented): The apparatus of claim 1, further comprising a transceiver for wirelessly transmitting re-encoded streams to mobile stations for each of the first and second users.

Claim 12 (Previously Presented): The apparatus of claim 1, wherein the encoding system provides an output configurable for handheld devices that require a first frame rate and a first bandwidth.

Claim 13 (Original): The apparatus of claim 12, wherein:
the first frame rate is 10 frames per second; and
the first bandwidth is within 16 kilo bits per second.

Claim 14 (Previously Presented): The apparatus of claim 1,
wherein the received stream comprises a stream of a first resolution, and
wherein for the first user the encoding system re-encodes the received stream by
re-encoding the stream of a first resolution to a stream of a second resolution, a first frame
rate and a first bandwidth.

Claim 15 (Previously Presented): The apparatus of claim 14, wherein:
the first resolution is a video graphics array (VGA) format; and
the second resolution and first frame rate are configured for a handheld device.

Claim 16 (Cancelled).

Claim 17 (Previously Presented): The apparatus of claim 1, wherein for each of the first
and second user preferences, the encode manager selects two or more of the plurality of
encoding parameter sets in accordance with the encoding scheme.

Claim 18 (Currently Amended): The apparatus of claim 1,
wherein the first encoding parameter is only for encoding audio data,
~~wherein~~ wherein the second encoding parameter set is only for encoding video data,
wherein the third encoding parameter set is only for encoding text data, and
wherein for each of the first and second users, the encode manager selects two or
more of the first one of the plurality of encoding parameter sets, the second one of the
plurality of encoding parameter sets and a third one of the plurality of encoding parameter
sets to only encode two or more of an audio type, a video type and a text type of the
multimedia stream.

Claim 19 (Cancelled)

Claim 20 (Original): The apparatus of claim 1, further comprising a computer configured
to receive the multimedia stream from a mobile station.

Claim 21 (Previously Presented): The apparatus of claim 20, wherein the mobile station is operable in the wireless communication system.

Claim 22 (Original): The apparatus of claim 1, wherein the multimedia stream is received using an over the air communication air interface.

Claim 23 (Original): The apparatus of claim 1, wherein the multimedia stream is received using an internet connection.

Claim 24 (Previously Presented): The apparatus of claim 1, further comprising a customer manager for generating billing information based on each of the first and second user preferences.

Claim 25 (Previously Presented): A method for providing digital multimedia in a wireless communication system, comprising:

determining with a customer manager of the wireless communication system a first user preference for selective re-encoding of a multimedia stream for a first user and a second user preference for selective re-encoding of the multimedia stream for a second user;

receiving the multimedia stream at an encode manager of the wireless communication system;

selecting at least one of a plurality of encoding parameter sets in accordance with an encoding scheme for each of the first and second user preferences,

wherein the encoding scheme includes a first scheme based on a first user preference and a second scheme based on the second user preference,

wherein the multimedia stream includes a plurality of different types of data,

wherein the plurality of encoding parameter sets include a first encoding parameter set for encoding only a first type of the plurality of types of data, a second encoding parameter set for encoding only a second type of the plurality of types of data different from the first type, a third encoding parameter set for encoding only a third type of the plurality of types of data different from the first and second types and a fourth encoding parameter set for encoding multiple types of the plurality of types of data, and

wherein the first user preference and the second user preference each indicates which of the first, second, third and fourth encoding parameter sets to use when encoding the multimedia stream; and

selectively re-encoding, with an encoder system of the wireless communication system, the received stream using the selected one of the plurality of encoding parameter sets to output an encoded stream with principles set fourth by the selected one of the plurality of encoding parameter sets,

wherein the first user preference specifies a first demand to provide the multimedia stream at a lower quality of service and a lowest billing rate, and the second user preference specifies a second demand to provide the multimedia stream at a higher quality of service and a higher billing rate relative to the first demand, and

wherein in response to the first user preference, the encode manager selects one of the plurality of encoding parameter sets that provides a high rate of compression and the lower quality of service at the lowest billing rate, and in response to the second preference, the encoder manager selects one of the plurality of encoding parameter sets that provides the higher quality of service at the higher billing rate.

Claim 26 (Previously Presented): The method of claim 25, further comprising selecting the encoding scheme from a group of encoding schemes that includes one or more of a scheme based on a system bandwidth, a scheme based on a wireless receiver capability, a scheme based on a number of users requesting a specific multimedia stream at a designated QoS, a scheme based on a multimedia data type, the scheme based on the user preference and a scheme based on characteristics of a mobile station.

Claim 27 (Previously Presented): The method of claim 26, further comprising generating billing information for the first and second users using the schemes based on the first and second user preferences.

Claim 28 (Previously Presented): The method of claim 26, further comprising generating billing information for the first and second users based on the multimedia data type generated for the first and second users.

Claim 29 (Previously Presented): The method of claim 26, further comprising executing the selected one of the plurality of encoding parameter sets for each of the first and second users using an encoder.

Claim 30 (Previously Presented): The method of claim 26, further comprising executing the selected one of the plurality of encoding parameter sets for each of the first and second users using a plurality of encoders.

Claim 31 (Cancelled)

Claim 32 (Previously Presented): The method of claim 25, further comprising receiving the multimedia stream at a decoder and decoding the received stream to output a decoded stream.

Claim 33 (Cancelled).

Claim 34 (Previously Presented): The method of claim 25, further comprising executing the selected at least one of the encoding parameter sets for each of the first and second users using an encoder.

Claim 35 (Previously Presented): The method of claim 25, further comprising wirelessly transmitting the re-encoded stream for each of the first and second users.

Claim 36 (Original): The method of claim 25, further comprising generating an output, configurable for handheld devices that require a first frame rate and a first bandwidth.

Claim 37 (Original): The method of claim 36, wherein:
the first frame rate is 10 frames per second; and
the first bandwidth is within 16 kilo bits per second.

Claim 38 (Previously Presented): The method of claim 25,
wherein the received stream includes a stream of a first resolution, and

wherein for the first user the encoding system re-encodes the stream of the first resolution to stream of a second resolution, a first frame rate and a first bandwidth.

Claim 39 (Previously Presented): The method of claim 38, wherein:
the first resolution is a video graphics array (VGA) format; and
the second resolution and first frame rate are configured for a handheld device.

Claim 40 (Original): The method of claim 38, wherein:
the first frame rate is within 10 to 15 frames per second; and
the first bandwidth is within 16 to 64 kilo bits per second.

Claim 41 (Cancelled)

Claim 42 (Previously Presented): The method of claim 25, wherein for each of the first and second user preferences, selecting at least one of the plurality of encoding parameter sets comprises selecting two or more of the plurality of encoding parameter sets in accordance with the encoding scheme,

wherein selectively re-encoding the received stream comprises selectively re-encoding the received stream using the selected two or more of the plurality of encoding parameter sets for each of the first and second user preferences.

Claim 43 (Previously Presented): The method of claim 42,

wherein the first encoding parameter is only for encoding audio data,

wherein the second encoding parameter set is only for encoding video data,

wherein the third encoding parameter set is only for encoding text data,

wherein for each of the first and second users, selecting two or more of the plurality of encoding parameter sets includes selecting two or more of the first one of the plurality of encoding parameter sets, the second one of the plurality of encoding parameter sets and the third one of the plurality of encoding parameter sets, and

wherein selectively re-encoding the received stream comprises selectively re-encoding the received stream using the selected two or more of the plurality of encoding parameter sets for each of the first and second users to only encode two or more of an audio type, a video type and a text type of the multimedia stream.

Claim 44 (Original): The method of claim 25, further comprising receiving the multimedia stream from a mobile station.

Claim 45 (Previously Presented): The method of claim 44, wherein the mobile station is operable in the wireless communication system.

Claim 46 (Original): The method of claim 25, further comprising receiving the multimedia stream via a communication air interface.

Claim 47 (Original): The method of claim 25, further comprising receiving the multimedia stream via an internet connection.

Claim 48 (Previously Presented): The method of claim 25, further comprising generating billing information based on each of the first and second the user preferences.

Claim 49 (Previously Presented): An apparatus, operable in a wireless communication system, comprising:

means for receiving, within the wireless communication system, a decoded stream;

means for determining a first user preference for selectively re-encoding the decoded stream for a first user and a second user preference for selective re-encoding of the multimedia stream for a second user;

means for selecting, within the wireless communication system, at least one of a plurality of encoding parameter sets in accordance with an encoding scheme to use for re-encoding the received decoded stream for each of the first and second user preferences,

wherein the encoding scheme includes a first scheme based on the first user preference and a second scheme based on the second user preference,

wherein the decoded stream includes a plurality of different types of data,

wherein the plurality of encoding parameter sets include a first encoding parameter set for encoding only a first type of the plurality of types of data, a second encoding parameter set for encoding only a second type of the plurality of types of data different from the first type, a third encoding parameter set for encoding only a third type of the plurality of types of data different from the first and second types and a fourth encoding parameter set for encoding multiple types of the plurality of types of data, and

wherein the first user preference and the second user preference each indicates which of the first, second, third and fourth encoding parameter sets to use when encoding the decoded stream; and

means for re-encoding, within the wireless communication system, the received decoded stream to output an encoded stream in accordance with the selected one of the plurality of encoding parameter sets,

wherein the first user preference specifies a first demand to provide the multimedia stream at a lower quality of service and a lowest billing rate, and the second user preference specifies a second demand to provide the multimedia stream at a higher quality of service and a higher billing rate relative to the first demand, and

wherein the means for selecting at least one of a plurality of encoding parameter sets comprises means for selecting, in response to the first user preference, one of the plurality of encoding parameter sets that provides a high rate of compression and the lower quality of service at the lowest billing rate, and in response to the second preference, one of the plurality of encoding parameter sets that provides the higher quality of service at the higher billing rate.

Claim 50 (Previously Presented): The apparatus of claim 49, further comprising means for selecting the encoding scheme from a group of encoding schemes that includes one or more of a scheme based on a system bandwidth, a scheme based on a wireless receiver capability, a scheme based on a number of users requesting a specific multimedia stream at a designated QoS, a scheme based on a multimedia data type, the scheme based on the user preference and a scheme based on characteristics of a mobile station.

Claim 51 (Previously Presented): The apparatus of claim 50, further comprising means for generating billing information for the first and second users using the schemes based on the first and second user preferences.

Claim 52 (Previously Presented): The apparatus of claim 50, further comprising means for generating billing information for the first and second users based on the multimedia data type generated for the first and second users.

Claim 53 (Previously Presented): The apparatus of claim 50, further comprising means for executing the selected one of the plurality of encoding parameter sets for each of the first and second users using an encoder.

Claim 54 (Previously Presented): The apparatus of claim 50, further comprising means for executing the selected one of the encoding parameter sets for each of the first and second users using a plurality of encoders.

Claim 55 (Cancelled)

Claim 56 (Previously Presented): The apparatus of claim 49, further comprising means for receiving the multimedia stream at a decoder and decoding the received stream to output the decoded stream.

Claim 57 (Cancelled)

Claim 58 (Previously Presented): The apparatus of claim 49, further comprising means for executing the selected one of the encoding parameter sets for each of the first and second users using an encoder.

Claim 59 (Previously Presented): The apparatus of claim 49, further comprising means for transmitting the re-encoded stream for each of the first and second users.

Claim 60 (Original): The apparatus of claim 49, further comprising means for generating an output, configurable for handheld devices that require a first frame rate and a first bandwidth.

Claim 61 (Original): The apparatus of claim 60, wherein:
the first frame rate is 10 frames per second; and
the first bandwidth is within 16 kilo bits per second.

Claim 62 (Previously Presented): The apparatus of claim 49, wherein the received stream comprises a stream of a first resolution and means for re-encoding the received stream comprises for the first user, means for re-encoding the stream of the first resolution to a stream of a second resolution, a first frame rate and a first bandwidth.

Claim 63 (Previously Presented): The apparatus of claim 62, wherein:
the first resolution is a video graphics array (VGA) format; and
the second resolution and first frame rate are configured for a handheld device.

Claim 64 (Original): The apparatus of claim 62, wherein:
the first frame rate is within 10 to 15 frames per second; and

the first bandwidth is within 16 to 64 kilo bits per second.

Claim 65 (Cancelled)

Claim 66 (Previously Presented): The apparatus of claim 49

wherein for each of the first and second user preferences, the means for selecting at least one of the plurality of encoding parameter sets comprises means for selecting two or more of the plurality of encoding parameter sets in accordance with the encoding scheme,

wherein the means for selectively re-encoding the received stream comprises means for selectively re-encoding the received stream using the selected two or more of the plurality of encoding parameter sets for each of the first and second user preferences,.

Claim 67 (Currently Amended): The apparatus of claim 66,

wherein the first encoding parameter is only for encoding audio data,

~~wherein~~ wherein the second encoding parameter set is only for encoding video data,

wherein the third encoding parameter set is only for encoding text data,

wherein for each of the first and second users, the means for selecting two or more of the plurality of encoding parameter sets includes means for selecting two or more of the first one of the plurality of encoding parameter sets, the second one of the plurality of encoding parameter sets and the third one of the plurality of encoding parameter sets, and

wherein the means for selectively re-encoding the received stream comprises means for selectively re-encoding the received stream using two or more of the first, second and third ones of the plurality of encoding parameter sets for each of the first and second users to only encode two or more of an audio type, a video type and a text type of the multimedia stream.

Claim 68 (Original): The apparatus of claim 49, further comprising means for receiving the multimedia stream from a mobile station.

Claim 69 (Previously Presented): The apparatus of claim 68, wherein the mobile station is operable in wireless communication system.

Claim 70 (Original): The apparatus of claim 49, further comprising means for receiving the multimedia stream via a communication air interface.

Claim 71 (Original): The apparatus of claim 49, further comprising means for receiving the multimedia stream via an internet connection.

Claim 72 (Previously Presented): The apparatus of claim 49, further comprising means for generating billing information based on each of the first and second the user preferences.

Claim 73 (Previously Presented): A mobile station, operable in a communication system, comprising:

- a transceiver configured to communicate with a wireless provider system; and
- a processor for displaying a multimedia stream received from the wireless provider system via the transceiver, wherein the multimedia stream is encoded using a first one of a plurality of encoding parameter sets and a second one of the plurality of encoding parameter sets in accordance with an encoding scheme,

- wherein the encoding scheme comprises a first scheme based a first user preference and a second scheme based on a second user preference,

- wherein the multimedia stream includes a plurality of different types of data,

- wherein the plurality of encoding parameter sets include a first encoding parameter set for encoding only a first type of the plurality of types of data, a second encoding parameter set for encoding only a second type of the plurality of types of data different from the first, a third encoding parameter set for encoding only a third type of the plurality of types of data different from the first and second types and a fourth encoding parameter set for encoding multiple types of the plurality of types of data,

- wherein the first user preference and the second user preference each indicates which of the first, second, third and fourth encoding parameter sets to use when encoding the multimedia stream,

- wherein the first user preference specifies a first demand to provide the multimedia stream at a lower quality of service and a lowest billing rate, and the second user preference specifies a second demand to provide the multimedia stream at a higher quality of service

and a higher billing rate relative to the first demand such that in response to the first user preference, one of the plurality of encoding parameter sets that provides a high rate of compression and the lower quality of service is selected to provide the lowest billing rate, and in response to the second preference, one of the plurality of encoding parameter sets is selected to provide the higher quality of service at the higher billing rate.

Claim 74 (Previously Presented): The mobile station of claimed in 73, wherein the group of encoding schemes includes one or more of a scheme based on a system bandwidth a scheme based on a wireless receiver capability, a scheme based on a number of users requesting a specific multimedia stream at a designated QoS, a scheme based on a multimedia data type, the scheme based on the user preference and a scheme based on characteristics of a mobile station.

Claim 75 (Previously Presented): The mobile station of claim 74, wherein the schemes based on the first and second user preferences are used to generate billing information for the first and second users.

Claim 76 (Previously Presented): The mobile station of claim 74, wherein the multimedia data type generated for the first and second users is used to generate billing information.

Claim 77 (Previously Presented): The mobile station of claim 74, further comprising an encoder for executing the one of the encoder parameter sets for each of the first and second users based on the encoding scheme.

Claim 78 (Previously Presented): The mobile station of claim 74, further comprising a plurality of encoders, each for executing one of the plurality of encoder parameter sets for each of the first and second users based on the encoding scheme.

Claim 79 (Previously Presented): The mobile station of claim 74, further comprising a bandwidth manager for determining the available bandwidth for the multimedia stream.

Claim 80 (Currently Amended): A communication system, comprising:

a customer manager to determine a first user preference for selective re-encoding of a multimedia stream, and a second user preference for selective re-encoding of a multimedia stream;

an encode manager that receives the multimedia stream, wherein the multimedia stream is encoded at a first resolution; and

an encoder system that dynamically customizes a re-encoding of the received stream to a second resolution and a third resolution using encoding parameter sets selected from a plurality of encoding parameter sets to selectively render an encoded stream with principles set forth by the selected encoding parameter sets, wherein the selected encoding parameter sets are determined based on an encoding scheme,

wherein the encoding scheme comprises a first scheme based on a first user preference and a second scheme based on the second user preference,

wherein the multimedia stream includes a plurality of different types of data,

wherein the plurality of encoding parameter sets include a first encoding parameter set for encoding only a first type of the plurality of types of data, a second encoding parameter set for encoding only a second type of the plurality of types of data different from the first type, a third encoding parameter set for encoding only a third type of the plurality of types of data different from the first and second types and a fourth encoding parameter set for encoding multiple types of the plurality of types of data,

wherein the first user preference and the second user preference each indicates which of the first, second, third and fourth encoding parameter sets to use when encoding the multimedia stream, and

wherein the first user preference further specifies a first demand to provide the multimedia stream at a lower quality of service and a lowest billing rate, and the second user preference specifies a second demand to provide the multimedia stream at a higher quality of service and a higher billing rate relative to the first demand, and

wherein in response to the first user preference, the encoder system selects at least one of the plurality of encoding parameter sets that provides a high rate of compression and the lower quality of service at the lowest billing rate and in response to the second preference, the encoder system selects one of the plurality of encoding parameter sets that provides the higher quality of service at the higher billing rate.

Claim 81 (Previously Presented): A communication system, comprising:

at least one decoder receiving an incoming encoded multimedia stream and decoding the stream to render a decoded stream;

a customer manager to determine a first user preference for selective re-encoding of the decoded stream, and a second user preference for selective re-encoding of a multimedia stream;

at least one encoding system configured for receiving the decoded stream and encoding the decoded stream for first and second users using at least one of a plurality of encoding parameter sets to render an encoded stream;

at least one computer that selects the at least one of the plurality of encoding parameter sets for each of the first and second users based on the first a user preference and the second user preference, wherein the multimedia stream includes a plurality of different types of data, wherein the plurality of encoding parameter sets include a first encoding parameter set for encoding only a first type of the plurality of types of data, a second encoding parameter set for encoding only a second type of the plurality of types of data different from the first, a third encoding parameter set for encoding only a third type of the plurality of types of data different from the first and second types and a fourth encoding parameter set for encoding multiple types of the plurality of types of data, and wherein the first and second user preferences indicate which of the first, second, third and fourth encoding parameter sets to use when encoding the multimedia stream,

wherein the first user preference specifies a first demand to provide the multimedia stream at a lower quality of service and a lowest billing rate, and the second user preference specifies a second demand to provide the multimedia stream at a higher quality of service and a higher billing rate relative to the first demand, and

wherein in response to the first user preference, the at least one computer selects the at least one of a plurality of encoding parameter sets that provides a high rate of compression and the lower quality of service at the lowest billing rate and in response to the second preference, the encoder system selects one of the plurality of encoding parameter sets that provides the higher quality of service at the higher billing rate; and

at least one wireless transceiver for transmitting an encoded stream.

Claim 82 (Cancelled)

Claim 83 (Cancelled)

Claim 84 (Previously Presented): The system of Claim 81, wherein the computer further determines which of the plurality of encoding parameter sets to use for each of the first and second users based at least in part on a wireless mobile receiver capability.

Claim 85 (Previously Presented): The system of Claim 81, wherein the computer further determines which of the plurality of encoding parameter sets to use for each of the first and second users based at least in part on a number of users requesting a specific multimedia stream at a designated QoS for that stream.

Claim 86 (Previously Presented): The system of Claim 81, wherein the computer further determines which of the plurality of encoding parameter sets to use for each of the first and second users based at least in part on a multimedia data type.

Claim 87 (Cancelled)

Claim 88 (Previously Presented): The system of Claim 86, wherein a particular user's service classification is used to generate billing information.

Claim 89 (Original): The system of Claim 86, wherein characteristics of the encoded multimedia stream are used to generate billing information.

Claim 90 (Original): The system of Claim 86, wherein mobile receiver capabilities are used to generate billing information.

Claim 91 (Previously Presented): The system of Claim 81, wherein at least one of the plurality of encoding parameter sets is capable of encoding a multimedia stream at a resolution of a quarter common intermediate format (QCIF) or smaller.

Claim 92 (Previously Presented): The system of Claim 81, wherein at least one of the plurality of encoding parameter sets is capable of encoding a multimedia stream at a resolution of a common intermediate format (CIF) or larger.

Claim 93 (Previously Presented): A method for wirelessly providing digital multimedia within a wireless communication system, comprising:

receiving an encoded multimedia stream;

decoding the stream to render a decoded stream;

selecting at least one of a plurality of encoding schemes to re-encode the stream at a wireless provider facility to render a re-encoded stream based on a first user preference and render a re-encoded stream based on a second user preference, wherein the multimedia streams includes a plurality of different types of data, wherein the plurality of encoding parameter sets include a first encoding parameter set for encoding only a first type of the plurality of types of data, a second encoding parameter set for encoding only a second type of the plurality of types of data different from the first type, a third encoding parameter set for encoding only a third type of the plurality of types of data different from the first and second types and a fourth encoding parameter set for encoding multiple types of the plurality of types of data,

wherein the first and second user preferences each indicates which of the first, second, third and fourth encoding parameter sets to use when encoding the multimedia stream, and

wherein the first user preference specifies a first demand to provide the multimedia stream at lower quality of service and a lowest billing rate and the second user preference specifies a second demand to provide the multimedia stream at a higher quality of service and a higher billing rate relative to the first demand;

selecting a first one of the plurality of encoding parameter sets that provides a high rate of compression and the lower quality of service at the lowest billing rate and selecting a second one of the plurality of encoding parameter sets that provides the highest quality of service at the higher billing rate; and

wirelessly transmitting the re-encoded streams to at least one wireless mobile station.

Claim 94 (Original): The method of Claim 93, wherein the selecting act is undertaken dynamically.

Claim 95 (Cancelled)

Claim 96 (Original): The method of Claim 93, wherein the selecting act is undertaken based at least in part on a wireless mobile receiver capability.

Claim 97 (Cancelled)

Claim 98 (Previously Presented): The method of Claim 93, comprising using a particular user's service classification to generate billing information.

Claim 99 (Original): The system of Claim 93, comprising using characteristics of the encoded multimedia stream to generate billing information.

Claim 100 (Original): The system of Claim 93, comprising using mobile receiver capabilities is used to generate billing information.

Claim 101 (Original): The method of Claim 93, wherein the selecting act is undertaken based at least in part on a multimedia data type.

Claim 102 (Previously Presented): A wireless provider system, comprising:
means for decoding a received encoded multimedia stream, wherein the encoded multimedia stream includes a plurality of different types of data;
first means for re-encoding only a first type of the plurality of types of the data;
second means for re-encoding only a second type different from the first type of the plurality of types of the data;
third means for re-encoding only a third type different from the first and second types of the plurality of types of the data;
fourth means for re-encoding multiple types of the plurality of types of the data; and

logic means for determining which one of the first, second, third and fourth means for re-encoding the stream to use for a first user and for a second user, based on a first user preference and a second user preference, wherein the first user preference and the second user preference each indicates which of the first, second, third and fourth means to use when encoding the multimedia stream, and

wherein the first user preference further indicates which of the first, second, third and fourth means to use when encoding the multimedia stream based a first demand specified in the first user preference to provide the multimedia stream at lower quality of service and a lower billing rate, and wherein the second user preference specifies a second demand to provide the multimedia stream at a higher quality of service and a higher billing rate relative to the first demand.

Claim 103 (Cancelled)

Claim 104 (Cancelled)

Claim 105 (Previously Presented): The system of Claim 102, wherein the first and second user preferences include a factor that defines a wireless user characteristic.

Claim 106 (Previously Presented): The system of Claim 102, wherein the first and second user preferences include a factor that defines a multimedia data type.

Claim 107 (Cancelled)

Claim 108 (Previously Presented): The system of Claim 102, further comprising means for generating billing information based on a user service classification.

Claim 109 (Previously Presented): The system of Claim 102, further comprising means for generating billing information based on characteristics of the encoded multimedia stream.

Claim 110 (Previously Presented): The system of Claim 102, further comprising means for generating billing information based on mobile receiver capabilities.

Claim 111 (Previously Presented): The system of claim 102, wherein first and second user preferences include a factor selected from group of factors that include a factor based on a system bandwidth, a factor based on a current available system bandwidth, a factor based on a wireless user characteristic, a factor based on a number of users requesting a specific multimedia stream at a designated QoS a factor based on a multimedia data type and the factor based on the wireless user preference.

Claim 112 (Previously Presented): A communication system, comprising:

decoder means for receiving incoming encoded multimedia streams and decoding the streams to output decoded streams;

encoder means for receiving and encoding at least one of the decoded streams using a plurality of encoding parameter sets to output an encoded stream for a first user and an encoded stream for a second user,

wherein the encoder means further includes means for selecting encoding parameters sets based on a first user preference and the second user preference, wherein the multimedia streams include a plurality of different types of data, wherein the plurality of encoding parameter sets include a first encoding parameter set for encoding only a first type of the plurality of types of data, a second encoding parameter set for encoding only a second type of the plurality of types of data different from the first type, a third encoding parameter set for encoding only a third type of the plurality of types of data different from the first and second types and a fourth encoding parameter set for encoding multiple types of the plurality of types of data, wherein the first and second user preferences each indicates which of the first, second, third and fourth encoding parameter sets to use when encoding the multimedia stream,

wherein the first user preference specifies a first demand to provide the multimedia stream at lower quality of service and a lowest billing rate, and the second user preference specifies a second demand to provide the multimedia stream at a higher quality of service and a higher billing rate relative to the first demand

wherein in response to the first user preference, the encoder means selects a first one of a plurality of encoding parameter that provides a high rate of compression and the lower quality of service at the lowest billing rate and in response to the second user preference, selects a second one of the plurality of encoding parameter sets that provides the highest quality of service at the higher billing rate.

Claim 113 (Cancelled):

Claim 114 (Cancelled)

Claim 115 (Previously Presented): The system of Claim 112, wherein the encoder means includes means for determining which of the plurality of encoding parameter sets to use for each of the first and second user preferences based at least in part on a wireless mobile receiver capability.

Claim 116 (Previously Presented): The system of Claim 112, wherein the encoder means includes means for determining which of the plurality of encoding parameter sets to use for each of the first and second user preferences based at least in part on a number of users requesting a specific multimedia stream at a designated QoS for that stream.

Claim 117 (Previously Presented): The system of Claim 112, wherein the encoder means includes means for determining which of the plurality of encoding parameter sets to use for each of the first and second user preferences based at least in part on a multimedia data type.

Claim 118 (Previously Presented): The system of Claim 112, wherein the encoder means includes means for determining which of the plurality of encoding parameter sets to use for each of the first and second user preferences based at least in part on a wireless user preference.

Claim 119 (Previously Presented): The system of Claim 112, further comprising a billing means for generating billing information based on a particular user's classification.

Claim 120 (Original): The system of Claim 112, further comprising a billing means for generating billing information based on characteristics of the encoded multimedia stream a particular user's classification.

Claim 121 (Original): The system of Claim 112, further comprising a billing means for generating billing information based on mobile receiver capabilities.

Claim 122 (Previously Presented): The system of Claim 112, wherein at least one of the plurality of encoding parameter sets comprises an encoding parameter set that is used to encode the multimedia stream at a resolution of a quarter common intermediate format (QCIF) or smaller.

Claim 123 (Previously Presented): The system of Claim 112, wherein at least one of the plurality of encoding parameter sets comprises an encoding parameter set that is used to encode the multimedia stream at a resolution of a common intermediate format (CIF) or larger.

Claim 124 (Previously Presented): The system of Claim 81, wherein the computer determines which of the plurality of encoding parameter sets to use for each of the first and second user preferences based at least in part on a system bandwidth.

Claim 125 (Previously Presented): The system of Claim 81, wherein the computer determines which of the plurality of encoding parameter sets to use for each of the first and second user preferences based at least in part on a current available system bandwidth.

Claim 126 (Previously Presented): The method of Claim 93, wherein the selecting act is undertaken at least in part based on a bandwidth.

Claim 127 (Previously Presented): The system of Claim 102, wherein first and second user preferences include a factor that defines a system bandwidth.

Claim 128 (Previously Presented): The system of Claim 102, wherein first and second user preferences include a factor that defines a current available system bandwidth.

Claim 129 (Previously Presented): The system of Claim 112, wherein the encoder means further includes means for determining which of the plurality of encoding parameter sets to use for each of the first and second user preferences based at least in part on a system bandwidth.

Claim 130 (Previously Presented): The system of Claim 112, wherein encoder means further includes means for determining which encoding parameter set to use for each of the first and second user preferences based at least in part on a current available system bandwidth.

Claim 131 (Previously Presented): The communication system of Claim 112, wherein the system comprises wireless service provider equipment that wirelessly communicates re-encoded versions of the multimedia stream to different wireless mobile stations.

Claim 132 (New): The apparatus of claim 1,
wherein the multimedia stream comprise a plurality of different types of multimedia data,
wherein the encoder manager selects the first encoding parameter set for encoding only the first type of the plurality of types of data,
wherein the encoder system re-encodes only the first type of the plurality of types of data using the selected first encoding parameter set, and
wherein the apparatus only sends the re-encoded first type of the plurality of types of data to a requesting device without sending any of the remaining types of the plurality of types of data to the requesting device.

Claim 133 (New): The apparatus of claim 1,

wherein the multimedia stream comprises audio, video and text data,

wherein the encoder manager selects the first encoding parameter set for encoding only the audio data,

wherein the encoder system re-encodes only the audio data using the selected first encoding parameter set, and

wherein the apparatus only sends the re-encoded audio data to a requesting device without sending any of the video and text data to the requesting device.